

### **AMENDMENTS TO THE CLAIMS:**

1) Please add claim 47 without prejudice or disclaimer of the subject matter thereof.

Claim 1 (original): A composition comprising an extract of Liriopsis tuber for protecting brain cells or improving memory.

Claim 2 (original): The composition of claim 1, wherein the content of the extract of Liriopsis tuber is 0.5-50% by weight based on the total weight of the composition.

Claim 3 (original): The composition of claim 1, wherein the extract of Liriopsis tuber is obtained by extracting with a solvent selected from the group consisting of C<sub>1-4</sub> lower alcohols or a mixture of said lower alcohols and water, acetone, chloroform, methylene chloride, ether and ethyl acetate.

Claim 4 (original): The composition of claim 1, wherein the extract of Liriopsis tuber is obtained by dissolving the solvent soluble fraction obtained as described in claim 3 in a mixed solvent of C<sub>1-4</sub> lower alcohol and water, adjusting pH value with an acid to a range of 2-4, and further fractionating via extraction with an equal amount of chloroform.

Claim 5 (original): The composition of claim 1, wherein the extract of Liriopsis tuber is obtained by dissolving the solvent soluble fraction obtained as described in claim 3 in a mixed solvent of C<sub>1-4</sub> lower alcohol and water, adjusting pH value with an acid to a range of 2- 4, further extracting with an equal amount of chloroform, adjusting pH value of the chloroform insoluble fraction with ammonium hydroxide to a range of 9-12, extracting the chloroform insoluble fraction with an equal amount of chloroform-methanol mixture, further extracting the chloroform-methanol insoluble fraction with methanol, fractionating, thereby obtaining the extract of Liriopsis tuber from the methanol soluble fraction.

Claim 6 (original): The composition of claim 1, wherein the extract of Liriopsis tuber is obtained by dissolving the solvent soluble fraction obtained as described in claim 3 in a mixed solvent of C<sub>1-4</sub> lower alcohol and water, adjusting pH value with an acid to a range of 2-4, further extracting with an equal amount of chloroform, adjusting pH value

of the chloroform insoluble fraction with ammonium hydroxide to a range of 9-12, extracting the chloroform insoluble fraction with an equal amount of chloroform-methanol mixture, further extracting the chloroform-methanol insoluble fraction with methanol, fractionating, thereby obtaining the extract of Liriopsis tuber from the methanol insoluble fraction.

Claim 7 (original): The composition of claim 1, wherein said composition further comprises at least one component selected from the group consisting of pharmaceutically acceptable carriers and additives.

Claim 8 (original): The composition of claim 1, wherein the composition is formulated into oral administration, topical applications, suppositories or sterile injections.

Claim 9 (original): Foodstuff comprising the composition according to claim 1 and a sitologically acceptable additive.

Claim 10 (original): The foodstuff of claim 9, wherein the content of the extract of Liriopsis tuber is 0.1 to 15% by weight based on the total weight of foodstuff.

Claim 11 (original): The foodstuff of claim 9, wherein said sitologically acceptable additive is at least one component selected from the group consisting of natural carbohydrates, flavors, nutrients, vitamins, minerals, seasonings, coloring agents, fillers, pectic acid and its salt, alginic acid and its salt, organic acids, protective colloidal thickeners, pH regulating agents, stabilizers, preservatives, antioxidants, glycerin, alcohols, carbonizing agents and sarcocarp.

Claim 12 (original): A beverage comprising the composition according to claim 1 and a sitologically acceptable additive.

Claim 13 (original): The beverage of claim 12, wherein the content of the extract of Liriopsis tuber is 1-30g per 100ml of the beverage.

Claim 14 (original): The beverage of claim 12, wherein said sitologically acceptable additive is at least one component selected from the group consisting of natural carbohydrates, flavors, nutrients, vitamins, minerals, seasonings, coloring agents, fillers, pectic acid and its salt, alginic acid and its salt, organic acids, protective colloidal

thickeners, pH regulating agents, stabilizers, preservatives, antioxidants, glycerin, alcohols, carbonizing agents and sarcocarp.

Claim 15 (original): A method for protecting brain cells against damage caused by excitatory amino acids and oxidative stress in a mammal comprising administering to said mammal a therapeutic amount of an extract of *Liriopsis tuber*.

Claim 16 (original): The method of claim 15, wherein said extract of *Liriopsis tuber* is administered in an amount of from 0.1mg/kg to 500mg/kg.

Claim 17 (original): The method of claim 16, wherein said extract is administered on a daily basis.

Claim 18 (original): The method of claim 15, wherein said extract is administered to said mammal via a route selected from the group consisting of oral administration, topical application, sterile injection, inhalation and rectal administration.

Claim 19 (original): The method of claim 15, wherein said extract is concurrently administered with a pharmaceutically acceptable carrier, excipient or diluent.

Claim 20 (original): The method of claim 15, wherein said administration comprises combining said extract with a beverage, and then orally administering said beverage.

Claim 21 (original): The method of claim 15, wherein said administration comprises combining said extract with a foodstuff, and then orally administering said foodstuff.

Claim 22 (original): A method for inhibiting AMPA-induced depolarization of a neuronal cell of a mammal comprising administering to said mammal a therapeutic amount of an extract of *Liriopsis tuber*.

Claim 23 (original): The method of claim 22, wherein said extract of *Liriopsis tuber* is administered in an amount of from 0.1mg/kg to 500mg/kg.

Claim 24 (original): The method of claim 23, wherein said extract is administered on a daily basis.

Claim 25 (original): The method of claim 22, wherein said extract is administered via a route selected from the group consisting of oral administration, topical application, sterile injection, inhalation and rectal administration.

Claim 26 (original): The method of claim 22, wherein said extract is concurrently administered with a pharmaceutically acceptable carrier, excipient or diluent.

Claim 27 (original): The method of claim 22, wherein said administration comprises combining said extract with a beverage, and then orally administering said beverage.

Claim 28 (original): The method of claim 22, wherein said administration comprises combining said extract with a foodstuff, and then orally administering said foodstuff.

Claim 29 (original): A method of facilitating tyrosine phosphorylation of a hippocampal protein of a mammal comprising administering to said mammal a therapeutic amount of an extract of Liliopsis tuber.

Claim 30 (original): The method of claim 29, wherein said extract of Liriopsis tuber is administered in an amount of from 0.1mg/kg to 500mg/kg.

Claim 31 (original): The method of claim 30, wherein said extract is administered on a daily basis.

Claim 32 (original): The method of claim 29, wherein said extract is administered via a route selected from the group consisting of oral administration, topical application, sterile injection, inhalation and rectal administration.

Claim 33 (original): The method of claim 29, wherein said extract is concurrently administered with a pharmaceutically acceptable carrier, excipient or diluent.

Claim 34 (original): The method of claim 29, wherein said administration comprises combining said extract with a beverage, and then orally administering said beverage.

Claim 35 (original): The method of claim 29, wherein said administration comprises combining said extract with a foodstuff, and then orally administering said foodstuff.

Claim 36 (original): The method of claim 29, wherein said hippocampal protein comprises an insulin receptor.

Claim 37 (original): A method of inhibiting cholinesterase activity in the brain of a mammal comprising administering to said mammal a therapeutic amount of an extract of *Liriopsis tuber*.

Claim 38 (original): The method of claim 37, wherein said extract of *Liriopsis tuber* is administered in an amount of from 0.1mg/kg to 500mg/kg.

Claim 39 (original): The method of claim 38, wherein said extract is administered on a daily basis.

Claim 40 (original): The method of claim 37, wherein said extract is administered via a route selected from the group consisting of oral administration, topical application, sterile injection, inhalation and rectal administration.

Claim 41 (original): The method of claim 37, wherein said extract is concurrently administered with a pharmaceutically acceptable carrier, excipient or diluent.

Claim 42 (original): The method of claim 37, wherein said administration comprises combining said extract with a beverage, and then orally administering said beverage.

Claim 43 (original): The method of claim 37, wherein said administration comprises combining said extract with a foodstuff, and then orally administering said foodstuff.

Claim 44 (original): Use of an extract of *Liriopsis tuber* for the preparation of a medicament for preventing or treating neurodegenerative diseases.

Claim 45 (original): Use of an extract of *Liriopsis tuber* for the preparation of a medicament for preventing or treating dementia.

Claim 46 (original): Use of an extract of *Liriopsis tuber* for the preparation of a medicament for improving memory.

Claim 47 (new): The method as of claim 29, wherein said hippocampal protein comprises ERKs (extracellular-signal regulated kinases).